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## **REMARKS**

Claims 1, 5-18, and 21-29 appear in this application for the Examiner's review and consideration.

Claim 1 has been amended to recite a specific distance of at least 0.20 inch between the face perimeter and transition junctions. The amended section combines the claimed matter of claim 2 and eliminates the phrase of "suitable distance", which was found to be indefinite by the Examiner. Also, claim 4 has been incorporated into claim 1, therein specifically claiming the oval shape of the insert that is a critical feature of the present invention's design concept.

Claim 5 has been amended to correct a typographical error. The amended thickness of 0.08 inch having support in the Specification, on page 5, lines 11-15.

Claim 7 has been amended to indicate that the claim relates to the embodiment of the invention having a "variable" insert wall thickness. Support for the amended segment is found on page 4, lines 29-31 to page 5 lines 1-7, wherein it is stated that the insert can have a thickness that is either uniform or not uniform. Inches has been changed to read inch.

Claims 9, 11, and 13 have been amended to replace "and" by "to about" to more correctly define a range and to make the claim enabling. This claim refers to an alternate embodiment, as cited in the Specification, on page 5, lines 25-29. In addition claim 13 has been amended to corrected state "inch" increments rather than "inches" as the dimension is less than an inch.

Claims 15 and 17 have been amended to correctly state "inch" in lieu of "inches" and more correctly define an enabling range of insert wall thickness. For these claims, the selected thickness of the insert is uniform and not variable. Support for an insert uniform thickness ranges is found in the Specification on page 6, lines 1-4.

Claim 18 has been amended to incorporate the claimed subject matter of claims 19 and 20, which define the location of the intersection point of hosel centerline and sole as well as defining the placement of the weight element.

Claims 21 and 22 have been amended to correct their dependency to claim 18.

Claim 23 has been amended to specify only the upper weight of 16 grams for the weight element.

Claims 25 and 27 have been amended to specify only one distance and one weight.

New claims 28 and 29 have been added to claim an insert that is not specified as stamped. Claim 28 specifically claims the thickness of the face perimeter as being thinner than the insert, while claim 29 claims the oval shape of the insert. Support for claims 28 and 29 can be found at least on page 4, lines 24-26.

New claim 30 has been added to claim an insert that is not specified as stamped.

Claims 2-4 and 19-20 have been cancelled without prejudice to Applicant's right to file one or more continuing applications directed to any subject matter not presently claimed.

No new matter has been added by these amendments.

### **REJECTION BASED ON DOUBLE PATENTING**

A duplicate Application No. 10/047,321 was filed on January 14, 2002 in response to the apparent misplacement of the present Application No. 10/038,235, which was filed October 19, 2002. Applicant had been informed that this application was lost or misplaced due to problems relating to the aftermath of September 11<sup>th</sup>. A receipt for this filed application was not received by the Applicant until January 18, 2002, which was four days after he filed the duplicate application. The Applicant herein expressly abandons the Application No. 10/047,321, and by separate paper has filed PTO Form SB/24 for an Express Abandonment under 37 CFR 1.138.

### **Rejection Under 35 U.S.C. § 112, First**

Claims 5, 13, 15 and 17 were rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter in the specification that would not make the invention enabling.

Claim 5 recited a typographical error of 0.8 inch that the Applicant has amended to recite the correct 0.08 inch dimension which has support in the specification on page 5, lines 11-15.

Claims 13 and 15 have been amended to correctly state the thickness range of the insert for the embodiment that is uniform throughout the insert.

Claim 17 has been amended to more correctly state the thickness range of the insert.

The rejection, under 35 U.S.C. § 112, first paragraph, is believed to have been overcome. Therefore Applicant respectfully requests reconsideration and withdrawal thereof.

#### **Rejection Under 35 U.S.C. § 112, Second Paragraph**

Claims 1-23 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as his invention.

Claim 1 has been amended to eliminate the "suitable distance . . ." language that the Examiner objected and to more accurately define the inventive concept by incorporating elements from claims 2 and 4.

Claims 13, 15 and 17 have been amended to recite that for an alternate embodiment, the thickness of the insert is uniform but that thickness may be selected from a thickness range. Thus, whatever the selected thickness, it is uniform throughout the insert.

The Examiner has stated that the wall thickness from FIG. 2 appears to be variable. The Applicant has claimed a variable thickness in claim 7, but in claims 13, 15 and 17, he has claimed that the thickness of the insert may be uniform. Support for claiming a uniform thickness as well as a variable thickness is found in the specification on at least page 4, line 28; page 5, lines 25-28; and page 5, line 31 to page 6 lines 1-4.

The rejections under 35 U.S.C. § 112, second paragraph are therefore believed to have been overcome. Applicant respectfully request reconsideration and withdrawal thereof.

### Rejection Over Ezawa et al. under 35 U.S.C. 103(a)

Claims 1-6, 9-12, 14, and 16 were rejected under 35 U.S.C. § 103(a) as being obvious over Ezawa et al. (U.S. Pat. 6,334,817).

Regarding claims 1 and 4, the Office Action states that Ezawa et al. discloses or is functionally equivalent to all the elements. As pertaining to claims 2 and 3, it is contended that Ezawa lacks only the expression of specific dimensions. As set forth below, Ezawa et al. does not capture the key inventive concepts of the Applicant's golf club head. It is these concepts that caused the present invention (which commercially is known as the King Cobra SS™ 350), to be "Easily voted Driver of the Year by *Golfweek* panelists" in the December 14, 2002 issue of *Golfweek*.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify the reference or combine the teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

First, the recognition of the oval shape of the Applicant's insert is extremely critical. Ezawa et al. does not attempt to develop a club head that will maximize Coefficient of Restitution (COR), therefore it does not address the necessity of specific distances between the transition junctions and the perimeter opening, nor does Ezawa et al. recognize, or suggest the importance an insert being of oval shape. The placing of the insert perimeter at least 0.20 inch from the transition junction is important. The upper and lower sections of the face perimeter of the present invention are thinner, compared to the insert thickness. Thus, a 0.20 inch distance from the transitions is an important criteria of the design in maximizing the spring effect produced. If this distance is reduced, the COR is reduced. However, by increasing this distance, the insert is proportionally reduced, thereby reducing the resulting sweet spot area. Ezawa et al. does not provide a club head that is functionally equivalent since their club head makes no attempt to simultaneously maximize COR values and or the sweet spot. The

placement of the insert of Ezawa et al. into the face area is but a convenience of completing the club head body and thereby reducing the amount of welding. A key design difference between Ezawa et al. and the present invention is that the Applicant claims the insert to be oval. Ezawa et al. provides an insert that is of a shape as seen in other prior art patents, whereby inserts conform to the shape of the club face. The importance of recognizing the oval shape of Applicant's insert is that in the make-up of a golf club head, the areas of greatest stiffness are located at the toe and heel points (these are where the crown meets the sole/skirt areas). To create a club with a maximum allowable COR, the Applicant creates a greater distance between the perimeter opening and these stiff points. That is why his insert is oval and does not follow the natural contour of the face. This increased distance does not exist in Ezawa et al. The Applicant's oval insert design results in the addition of greater club face flexibility which translates into increased COR over a greater area.

Claims 6, 10, and 12 are dependent upon what is now believed to be an allowable parent claim. For at least this reason, these claims are believed to be allowable.

The Applicant includes claims 9, 11, and 14, as comprising size ranges for club heads that include the driver, and the three and five fairway woods. The Applicant respectfully must differ with the Examiner's statement that U.S.G.A. requirements limit club heads to 350 cc. This is erroneous and groundless. There is no such limitation.

Claim 16 was presented to further define the parent claim so as to include Cobra® fairway woods since they are dependent on the same patentable technology, although different materials of construction.

Claims 7-8, 13, 15, and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ezawa et al. in view of Noble et al. (5,954,596) and Kosmatka (6,338,683). Claims 7 and 8 are based upon an embodiment wherein the insert has a variable thickness, while claims 13, 15 and 17, are based on an alternate embodiment wherein the insert has uniform thickness but that thickness may be selected from a given range. For reasons indicated above, it is suggested by the Applicant that Ezawa et al. does not anticipate the amended claim 1, and the teachings of Noble et al. and

Kosmatka do not cure the deficiencies of Ezawa et al. Noble et al. actually claims a bulge in the face that teaches away from a uniform thickness and double radius.

Claims 18-27 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ezawa et al. in view of Masghati et al. (4,471,961) and Sun (5,219,408). The Examiner cites Masghati as using weights to increase the moment of inertia, and cites Sun for teaching the use of multiple weights to adjust the club head balance. Neither of these references teach the Applicant's invention. Applicant acknowledges that placing a weight in the club head and also placing multiple weights is old. However, the Applicant has discovered that the placement of the weight element directly rearward of the intersection point of the hosel axis and the sole, will greatly increase the performance of ball flight. The ability of the golfer to provide a draw and increased loft, reduces the tendency of the golfer to slice, which is the biggest problem facing the medium to high handicap golfer when using a large head club. Neither Masghati et al., nor Sun or other prior art suggests the Applicant's method for placing the weight element.

The Examiner's rejection of claim 19, which is now cancelled and incorporated into claim 18, is based upon Official Notice. The Examiner states "provides the hosel configuration of the claimed invention, and that Official Notice is taken that it would have been obvious to have such hosel configuration to improve shaft's support". The Applicant does not claim any particular hosel configuration for shaft support. The Applicant is claiming that the hosel has an axis that defines a point on the sole.

Furthermore, the disclosure by Sun teaches away from the present invention's positioning of the weight element. Sun teaches the use of multiple weight inserts that are placed in the sole and not the heel/skirt area as is taught by the present invention. Also, Masghati et al. places his weights specifically in the heel and toe areas and definitely not rearward of the intersection of the hosel centerline and sole. This directly teaches away from the present invention. The Applicant believes that the references, taken individually or in together, do not describe nor suggest the structure of the Applicant's invention. The weight element placed in the junction of the heel and skirt directly rearward of the intersection point, created by the hosel centerline and sole, has resulted in unexpected performance results as is supported by the Applicant's

Declaration. No prior art reference bases its weight placement as does the Applicant and the dramatically increased sales results support the spectacular performance of the club.

For at least reasons stated above, claims 18-27 are believed to be patentable over Ezawa in view of Masghati et al. and Sun.

Claims 1-17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gallaway (6,354,962). The Applicant respectfully must disagree with the Examiner's citation of the design disclosure of Gallaway as being completely erroneous. On page 6, paragraph 6, line 3 of the Office Action, there is a recital of a "metal impact insert oval shaped or striking face 72". There is no suggestion in Gallaway that there is an insert, especially a stamped insert as claimed by the Applicant. Gallaway actually describes a forged face member 60 that is a single piece of forged metal. This face member 60 includes a face plate 72 but it does not have an insert therein. Thus, Gallaway places the weld of a forged cup-like face member into the crown area, and the Applicant places the weld of an oval stamped plate into the face area. This is dramatically different in design, and will change the flex characteristics of the face and crown. There is no question that they both seek to affect the COR, but stating that the upper and lower lateral extensions of Gallaway are functionally equivalents to the upper and lower sections of the perimeter face of the Applicant's invention is erroneous. They are absolutely not functional equivalents of each other.

Claims 18-27 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gallaway in view of Masghati et al. (4,471,961) and Sun (5,219,408). For the reasons stated above, Gallaway does not disclose an oval insert, or the placement of that insert or other inventive concepts associated with the selection of that location as claimed in the Applicant's invention. Neither Masghati et al. or Sun, separately or in combination, do not cure the defects set forth above: first, they do not describe the inventive concept of positioning a weight pad directly rearward of the intersection point created by the hosel centerline intersecting the sole as claimed by the Applicant. As stated above, weights are commonplace in the design of club heads. An important design concept of the Applicant's King Cobra SS™ 350 is the positioning of the weight element directly



rearward of the intersection point of the hosel centerline and the sole of the club head, in the junction of the heel and skirt. This, has resulted in unexpected and unanticipated performance results as shown by the commercial success discussed above.

It is well held that a *prima facie* case of obviousness can be rebutted if Applicant can show that the cited reference, in any material respect, teaches away from the claimed invention. *In re Geisler*, 116 F.3d 1465, 43 U.S.P.Q.2d 1362, 1365 (Fed. Cir. 1997). The reference may further be said to teach away when a person of ordinary skill in the art, upon reading the reference, would be led in a direction divergent from the path that was taken by Applicant. *Tec Air, Inc. v. Denso Mfg. Mich. Inc.*, 192 F.3d 1353, 1360, 52 U.S.P.Q.2d 1294, 1298 (Fed. Cir. 1999). The disclosure of Gallaway placing his weld in the crown of the club teaches away from the teaching of the present invention which places the weld of the face. The disclosure by Sun teaches away from the present invention's positioning of the weight element. Sun teaches multiple weight inserts which are placed in the sole and not the heel/skirt area as is taught by the present invention. Masghati et al. places his weights specifically in the heel and toe areas and not based upon the intersection of the hosel centerline and sole. This directly teaches away from the present invention of placing the weight directly rearward from the intersection point of hosel centerline and sole plate. The Applicant believes that the rejection under 35 U.S.C. § 103(a) has been overcome for at least the above reasons. Applicant respectfully request reconsideration and withdrawal thereof.

### **Conclusion**

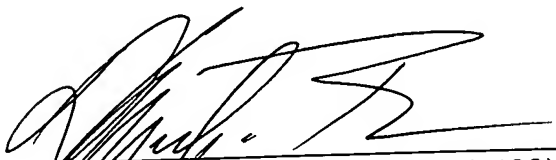
Based on the remarks set forth above, Applicant believes that all of the rejections have been overcome and the claims of the subject application are in condition for allowance. Should the Examiner have any further concerns or believe that a discussion with the Applicant's agent would further the prosecution of this application, the Examiner is encouraged to call the agent at the number below.

At the time of filing, the above-identified Application included a total of 27 claims, 2 of which were independent claims. The present submission has cancelled 5 dependent claim(s), and added 2 new independent claim(s). As such, a fee of \$84 is

due for this submission. Please charge this and any other required fees to the Acushnet Company Deposit Account No. 502309.

Respectfully submitted,

4-11-2003  
Date

  
D. Michael Burns (Reg. No. 38,400)

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